

An Extraēt of a Letter written to the Royal Society out of Carniola, by Mr. John Weichard Valvafor, R. Soc. S. being a full and accurate description of the wonderful Lake of Zirknitz in that Country. Vide Phil. Transact. N. 54, & 109.

THIS Lake was by the Ancients called *Lugea Palus*, by the moderns *Lacus Lugeus*, tho' at present its Latine name be *Lacus Cirknicensis*, in high Dutch *Zirknizer-see*, and in our Carniolan tongue *Zirknisko Jeseſero*. Why it was so called of old is unknown or very uncertain; but the original of the present name is more sure, it being derived from the adjacent town of *Cirknits*: and that had its name, from a Chappel of the *Virgin Mary*, which at first stood alone, but now the town is built round it. This Chappel was no great edifice at first, and therefore was called the little Chappel, which in the Language of the Countrey is *Zirkviza*; whence the Lake was named *Zirkvisko Jeseſero* or the Chappel-Lake, but now by abuse *u* being changed into *n* *Zirknisko Jeseſero*.

It is distant from the Capitall City of the Province *Labac*, six German miles; it is a good German mile long, or better than 4000 Geometrical paces, and is about half as much in breadth. Its ordinary depth is 10 Cubits, its least 5 or 6, rarely three, but its greatest is sixteen Cubits. It is every where surrounded with woody mountains, which on the South and West side are very high and three miles broad, running far in length into the *Turkish* country, and afford nothing but horrid stony deserts, overgrown with trees. On the North and East

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side there is, between the Mountains and the Lake, a small territory, which tho' narrow is nevertheless pleasant, and is inhabited by one Town, three Castles and nine Villages, adorned with twenty Churches: as may be seen in the Map I send (*Fig. I.*) which was drawn by myself upon the place, with all possible care.

In the Mountain called *Iavornik* standing near the Lake, there are two holes, or exceeding deep precipices, in which many thousand wild Pidgeons roost all the Winter; entering in Autumn, and coming out with the first of the Spring: What they live upon in these caverns is unknown, but I take it to be the Nitrous Sand. In the other hill called *Slivenza*, 'tis the belief of the Country People that the Witches hold their assemblies, because that several times lights like *Ignes fatui* are observed there. On the top of this hill is a hole of an unknown depth, out of which there often breath out noxious steams, supposed to occasion tempests of Thunder and Lightning and Hail; and for this reason the Priest of *Zircknits* every *Whitsen-Munday* goes to the Hole in Procession, and uses over it a certain form of Exorcisme.

There runn into this Lake continually eight Rivulets. The two least are called *Bellebrech* and *Tresenz*; the third is the fountain *Oberch*, out of which abundance of Water gushes with great force; the fourth fifth and sixth called *Steberziza*, *Lipfinziza* and *Seromschiza*, may for their bigness deserve the name of Rivers; the seventh called *Martinschiza* breaks out at a cleft in the Rock: The Last called *Cirknizer-bach* is a pretty large River.

Now this Lake being every where surrounded with Mountains, and no where running over, Nature has given it two visible Channels or stony Caverns, called *Velka-Karlouza* and *Mala-Karlouza*, by which the Water runs under the Mountain; and a third concealed subterraneous Passage, which without doubt communicates with the other two under ground (as I shall hereafter prove) These
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having run half a German Mile, come out at the other side of the Mountain, near the Chappel of *St. Cantian* (as I have faithfully drawn it in *Fig. II.*) in a desert place at a stony Cave *A*; and become the River called by the inhabitants *Jesero*, that is *the Lake*. This River *Jesero* marked *B*, is reasonably bigg, and having run half a quarter of a Mile, enters a wide stony Cavern, *I*, running slowly under the hill for the space of a good Musquets shot; then coming out again on the other side, after it has ruu thro' a small platt *m, m*; it enters a third Cavern or Grotto *C*; wherein having passed 50 Paces, one may say *Siste Viator, ne plus ultra*, for it runs no longer peacibly as before, but with great noise and roaring falls down a very much inclined channel of stone, so that neither I nor any else durst follow it farther. In *June* 1678 I went my self in a small fisher boat under the Mountain, through the Cave *I*, and entred the Grotto *C*, till I came to the afore-said *Falls*, without any danger or trouble, the passage being wide enough.

It must be noted, that the Valley wherein this River *Jesero* runs, is exceeding steep, but the Plat of Ground *m, m*, is plain and stony, of an Oval Form, and is surrounded with (as it were) a very high Rampart *KKK*, so steep, that it would be impossible for a Cat to climb out of it, unless at one place, whereat a Man may make a shift to go up and down, tho' not without peril of his Life; the Way being in some places not above three or four Inches, and no where above six Inches wide. In the Year 1684 I went down here in Company with a *French* Gentleman, but the Water being up and we wanting a Boat, we could not go under the Hill nor enter the Grotto *C*; so we returned, and with great difficulty descended by a steep and narrow Passage at *D*, and came to a Cave bigger than any Church, through which the River *Jesero* runs. Here we found several Figures of Stone, the Workmanship of Nature, and strange Holes or Caverns in the

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Earth;

Earth; but by reason the River was then up, we could go no farther. At other times when the Water is down, one may go with lighted Torches a great way under ground; and 'tis said there are here very odd Figures formed by the petrified Water: among the rest, one resembling a Weaver at Work, of which the Country People want not their Superstitious Traditions.

But to return to our Lake; I say that about the Feast of *St. John Baptist* or *St. James-Tide*, and sometimes not till *August*, the Water runs away and it is dry: But it fills again most commonly in *October* or *November*, yet so as not to observe any certain time; for sometimes it has been drie twice or thrice in a Year: as in the Year 1685, it was dry in *January*. Again the Water began to draw off, on the 15th of *August* *St. N.* and it was quite clear by the 8th of *Sept.* and this present Year 1687, it has been thrice empty, which makes the Fishing very poor and inconsiderable. Sometimes again, tho' but seldom it has hapned to be three or four Years together full of Water, and then is the best of the Fishing. But it never yet was observed that this Lake was dry for a whole Year together.

The right of Fishing in this Lake, upon certain Terms agreed on, does at this time belong to the Lordships or Castles following, 1. to *Haasberg*, 2. *Steegberg*, 3. *Laas*, 4. *Schneeberg*, 5. *Avesberg*, 6. to *Sitticium*, which is a Monastery of *Cistercian Monks*.

There are three Islands in this Lake, *viz. Mala-Goriza* and *Velka-Goriza* which are uninhabited. The third is a very pretty Island called *Vornek* that is reasonably big, having upon it a Village of four Houses called *Ottok*; above this Town upon a little eminence stands a Church, which is no small Ornament. Those that live on it have Fields, Meddows, Pastures, Wood, Gardens and Orchards, and all things necessary for Life.

There is also a very fine *Peninsula* all covered with Wood, called *Dorvasék*. When the Lake is up, and one comes

comes in a Boat between the Island *Vornek* and this *Peninsula*, the farther part of the Lake, lying under the Mountain, very well resembles a curious Port for Shipping. At the farther end when the Water draws off, there appears rows of Stakes, a Signe that there hath been formerly a Bridge, and therefore it is at this day called the *Old Bridge*.

In this Lake there are many Pitts in the shape of Basins or Cauldrons, which are not all of the same depth or breadth, the breadth of them being from 20 to 60 Cubits more or less, and the depth from 8 to 20 Cubits. In the bottom of these Pitts are several holes, at which the Water and Fishes enter, when the Lake ebbs away.

The principal Pitts in which they Fish are Eighteen, situated and named as is represented in the first *Fig*. They are called *Maljoberch*, *Velkjoberch*, *Kamine*, *Sucinskajamma*, *Vodonos*, *Louretschka*, *Kralouduor*, *Rescbeto*, *Ribeskajamma*, *Rethje*, *Sittarza*, *Lipauza*, *Gebno*, *Koteu*, *Ainz*, *Zeslenza*, *Pounigk*, and *Levishe*. Besides these there are several other lesser Pitts of no Note, because there is no such Fishing in them as in those but now mentioned.

In the Months of *June*, *July*, and *August*, when this Lake begins to draw off, it grows quite drie in 25 Days, if no great Rains intervene. And the aforesaid 18 Pitts, are all emptied one after the other, in a certain and never failing Order of Time.

When the Lake begins to sink, which appears by a certain Stone which they observe, the Inhabitants of the Town called *Oberdorff* or *Seedorf*, give Notice thereof to all the Neighbouring Fishermen, that are appointed by the several Lords having a Right in this Fishing. The People of this Town have Orders not only to watch the falling away of the Water, but likewise to take care that no body presume to Fish in the Lake when it is full of Water, that being forbidden: so that these are as it were the Keepers of the Lake.

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The first Pitt called *Maljoberch*, is not properly a Pitt like a Cauldron, but only a depression of the bottom without any holes in it: but there grows much Grass and Weeds, and many Fish are Caught therein: Three days after the Water begins to Ebb, this Pitt is emptied: Then the Parish Clark of *Seedorff* gives Notice thereof by Tolling a Bell, and all the Inhabitants of the Town, Old and Young, Men and Women, lay aside all other Business and go to Fishing, stark naked as they were born, without any regard to Modesty or Shame. The Fish they Catch, they divide in halves, one part they give to the Prince of *Eggenberg*, as the Lord of the Mannour, the other half is their own.

(2.) The Pitt *Velkioberch* is emptied the third day after *Maljoberch*, the manner and right of Fishing as in that.

(3.) Four Hours after this, the Pitt *Kamine* begins to empty; here they generally Fish with a Trawle, as in several other Pitts of lesser Note, having first purchased leave of the aforesaid Lord of the Mannour. Here, as likewise in the Pitt (4.) *Sueinskajamma*, (which sinks one hour after *Kamine*) is much Fish caught, and an abundance of large *Crabbs*, but they are lean and of no good tast.

(5.) The Fifth Pitt *Vodonos*, dries five days after *Kamine*. In this and the other Pitts which follow, they Fish with a long Nett or Sayne. Herein they can have no more than five or six *Hawl's*, by reason of the great swiftness wherewith the Water runs away at the holes in the Bottom (which is such that a Horse can hardly keep pace with it) and carries away the Fish with great violence under the Earth. Sometimes when the Fishermen are not nimble, they can scarce get two *Hawl's* before the Water be gon; to prevent which they have a Mark near this Pitt, *viz.* the Stone *Ribeskekamen*, that is the *The Fishers Stone*, which as soon as it begins to appear upon the
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cess of the Water, gives Notice that it is time to begin the Fishing.

(6.) The Pitt *Louretschka* is evacuated a day and a half after *Vodonos*, the Fishing is after the same manner, and the same Caution necessary, because of the suddain recess of the Water.

(7.) The Water leaves the Pitt *Kralouduor* twelve hours after *Louretschka*; and three days after that (8.) the Pitt *Rescheto*. In this latter, in the Year 1685, after the Lake had been some Years without being dry, there were taken at the first Hawl, 21 Carts of Fish, at the second 17, and at the third 9, as I have been credibly informed by those that were present.

(9.) The Pitt *Ribeskajamma* falls dry at the same time with *Rescheto*, which is that next to it. In this Pitt they fish under ground, which is a Curiosity not unpleasant, and differing from all the rest. For there is in the Bottom a great hole in the Stone, by which Men may easily go down with lighted Torches, as into a deep Cistern; and there is under ground a large Cavern like a Vault, the Bottom or Pavement whereof is as it were a Sive full of little Holes, whereby the Water runs away leaving the Fish dry, where they are Caught.

(10.) The Pitt *Rethje* is empty two hours after *Ribeskajamma*, and is of no great Consequence for Fish: An hour after this the Pitt (11.) *Sittarxa*, and in five or six hours more (12.) *Lipauxa* falls dry.

(13.) The third day after *Rescheto* the Pitt *Gebno* is evacuated; in this they rarely Fish with Netts, but let it fall dry, and the Holes in the Bottom being so small, that they exceed not the size of a Man's Arm, all the great Fish are left behind in the Pitt.

(14.) Two days after *Gebno* the Pitt *Koteu* becomes dry: In this they sometimes take the Fish as in the former, but the Holes being greater let bigger Fishes pass.

(15.) The Pitt *Ainx* empties 4 or 5 hours after *Koteu*: In
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this they seldom (unless they cannot help it) let the Water run away without using their Netts, as in *Gebno*; because of one great Hole in the Bottom, whereby many great Fishes may escape. (16.) The Pitt *Zeffenza* sinks three hours after *Ainz*; in this they allways Fish with Netts, as in (17,) *Pounigk*, which is emptied the next day after *Koteu*.

(18.) The last Pitt called *Leuifche* is evacuated the third Day after *Pounigk*, that is the 25th Day from the beginning of the Recess of the Water of the Lake, so that in 25 Days the Fishing of this Lake is over. In this last Pitt, about 17 Years since, I am certainly informed, that there fell a Flash of Lightning, about the Time of Fishing; which stunned a great Multitude of large Fishes, so as they fill'd 28 Carts with them: (By a Cart is meant as much as one Horse can draw) These Fish are not properly Thunder struck, but only stunned with the Violence and Sulfurous Vapour of the Lightning, which makes them rise and swim as dead upon the top of the Water; but if they be taken up and put in fresh Water, they soon recover, otherwise they Die: This is no uncommon Accident in this Lake.

The Fishing being thus ended, a Signe is given by tolling the Bell in the Chappel of St. *John Baptist*, near the Town of *Cirkniz*. Upon which all the Inhabitants of the neighbouring Villages and of *Cirkniz*, without regard either to Age or Sex, go, for the most part stark naked, into the Lake, and look for Fish among the Weeds and Sedge, and in the smaller Pitts. And many creep into the Subterraneous Caverns and Passages, and find store of large Fishes there. They having full Liberty to search all over the Lake, excepting in the Pitts *Piauze*, *Narte*, and *Velkjoberch*. This Barbarous and Immodest Custom of going Naked, has been often attempted to be reclaimed by the *Carthusian Monks*, but all in vain, for so prevalent is a Habit of vicious Practices over good Precepts, that
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they have not yet been able to persuade them so much as to cover their Secrets.

There are besides these some other Pitts in the Lake, as *Skednenza*, *Mala* and *Velka-bobnarza*, in which they Fish likewise, as also in *Mala-karlouza* and *Velka-karlouza*: In both these they go far under ground with lighted Torches and find Fish, but these Pitts are of no great value. In *Velka-bobnarza* one may go in at great holes, and descend many Fathoms under ground. These two Names *Velka* and *Mala-bobnarza*, signifie in the *Carniolan* Tongue the *Greater* and *Lesser Drummer*; nor is it without Reason that these Pitts are so called; for when it Thunders and Lightens, there is heard in these two Pitts, as it were, the Sound of many Drums Beating, which *Anno* 1685, I heard with my own Ears; it Thundring three times successively, and the Sound of Drums answering accordingly.

The two Pitts *Narte* and *Piauze*, are never emptied, but always remain Fenny, and the rest of the Lake is quite dry. It is believed, that in these Pitts the Fish lay their Spawn, and therefore it is prohibited to Fish in them. In them is an incredible Number of *Horse-leeches*, which according to the vulgar Opinion, understand certain Words; for that upon repeating them, they will come in great Parties towards him that repeats them, whereas if he be silent, very few of them will touch him. These *Horse-leeches* often stick upon the People in the Fishing time, (some of them being dispersed all over the Lake) and the Method they take to get them off, is to get some other Person to piss upon the *Leech*, which makes it let go its hold; and this without any respect to Modesty is practised, as well upon the Women as Men.

There are in the Mountain nigh the Lake, but something higher than it, two great and terrible stony Caves, the one called *Urainajamma*, the other *Skadulze*, which tho' far distant one from the other have yet the same Effect, viz. when it Thunders and Lightens, these two

Caves do emit Water with a wonderful and incredible force, and with it sometimes a great quantity of *Ducks* with some Fish; which I myself observed in *October* 1685, not without great danger of my Life. I took my Horse and rid Cross the Lake, as far as the Island *Vornek*, in Company with two old experienced Fishermen; when suddainly the Cavern in the Mountain *Slivenza*, began to breath forth misty Vapours forming a Cloud. Upon which my Fishermen advised me to make haste, for without doubt those Clouds would produce a Tempest. They had scarce said so, when it began to Lighten and Thunder dreadfully; and I had difficulty to perswade them to accompany me as far as the Pitt *Velkabobnarza*, being desirous to examine what is said of it, that when it Thunders the Sound of many Drummers is heard in it. This I found three times to succeed as reported; and then with all the speed we could, we hasted to the Island *Velka-Goriza*, not being able to go farther, because the Water was in many places gone out of our depth, where two hours before we had passed drie. Here we got one of the little Fisher-boats, which when the Lake is drie lie dispersed here and there on the bottom; and having got in my Horse, we began our Voyage, but had the ill luck to overset our Boat, and so were obliged to swim for't, and with much to do arrived safe on the other Shore. Then we could see from the other side that the Water gushed with great *Impetus* out of the Cave *Sekadulze*, being cast three or four Fathoms, as if it were forced by a *Fire-Engine*, and several blind *Ducks* were thrown out by the Water. It is not to be wondred that the Lake fills so fast, for considering the Violence wherewith the Water rushes, it is as much as a great River; this Cave *Sekadulze*, being a Fathom wide, and higher than a Man. It is lookt upon as a dangerous thing to enter into this Cave, because the Water comes so all on a suddain, that if it should chance to come, it is impossible to escape it.

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When it Rains moderately, the Water spouts with great Violence two or three Fathoms perpendicularly, out of the Pitts *Koteu* and *Zeffenza*. It comes likewise forceable out of the Spring *Trefenz*, as likewise out of *Velkieberch*, bringing with it at this latter abundance of Fish, and some *Ducks*. But when it Rains very hard and long together, especially with Thunder, then the Water breaks out with very great force, not on y from all the aforefaid Pitts, Holes and Caves, but likewise at several thousand other little Holes which are all over the bottom of the Lake, and (which when the Lake is dry, drink up the Waters of the eight Rivulets that run into it) spirting feveral Fathoms high, from some perpendicularly, from others obliquely, so that there is not a pleasanter fight than this. And out of the Pitts, *Vodnos*, *Refcheto*, and some others having great holes at the Bottom there comes with the Water a great quantity of Fish. In case of great Rains, the eight Rivulets are likewise much encreased, so that all things concurring, this Lake in 24 hours time, will, from quite dry, be full of Water, and sometimes in 18 hours; though at other times it has been known to be three Weeks in filling: But it is a constant Observation, that Thunder and Lightning help much to fill it speedily.

This Lake being thus by turns wet and dry, serves the Inhabitants for many purposes. For, first, while it is full of Water, it draws to it several sorts of *Wild-Geese* and *Ducks*, and other Water-Fowl, as *Hérons*, *Swans*, and the like, which may be shot, and are very good Meat.

Next as soon as the Lake is emptied, they pluck up the Rushes and Weeds, which make excellent Litter for Cattle. 3. Twenty days after it is fully dry, they do cut a great quantity of Hay upon it. 4. After the Hay is in, they Plow it and sow *Millet*, which sometimes by the too suddain coming of the Water is destroyed, but it generally comes to Maturity. 5. While the *Millet* is on the

Ground they catch a great Number of Quails. 6. The *Millet* being inn, there is good Pasture for Cattle. 7. When the Lake is dry, there is great variety of Hunting; there coming out of neighbouring Woods and Mountains plenty of *Hares*, *Foxes*, *Deer*, *Swine*, *Bears*, &c. so soon as the Water is gone. 8. When it is full, one may Fish in it. 9. In Winter time it will be so firmly frozen as to bear all sorts of Carriages, and is a great convenience to the People to fetch their Wood and other Necessaries; lastly at the time when the Water goes away, it yields great abundance of Fish, as has already been said. And that which is most Wonderful is, that all this comes to pass in the same place, and the same Year, *viz.* If the Lake be early dry, and it fill not too soon; but it is to be noted, that the Hay does not grow, nor is the *Millet* sown all over the Lake, but only in the more fertile places.

There are only three sorts of Fish taken in this Lake, which are very well tasted. They are the *Mustela*, *Fluviatilis* or *Eel-pout*, some of them weighing 2 or 3 Pounds. *Tench*, some of them weighing 6 or 7 Pounds; and thirdly *Pikes* in very great plenty, of 10, 20, 30, and some of 40 Pound weight; in the Bellies of these it is common to find whole *Ducks*. *Crabbs* are found no where but in the *Pitts Kamine* and *Sueinskajamma*; they are large but ill tasted.

The Cause or rather *Modus* of all these wonderful *Phænomena* in the Lake of *Zirknitz* is, according to my Opinion and Speculations, as followeth. There is under the Bottom of the Lake another Subterraneous One, with which it communicates by the several holes described: There are also one or more Lakes under the Mountain *Janornik*, but whose surface is higher than that of the Lake of *Zirknitz*. This upper Lake is possibly fed by some of those many Rivers, which in this Country bury themselves under ground, and has a Passage sufficient to carry the Waters they ordinarily bring unto it; but when it
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Rains, especially in Thunder Showers, which are the most hasty, the Water is precipitated with great Violence down the steep Valleys, in which are the Channels of these Rivulets; so that the Water in this Lake, being increased by the suddain coming in of the Rains faster than it can empty, swells presently: and finding several Holes or Caverns in the Mountain higher than its ordinary surface, it runs over by them both into the Subterraneous Lake under that of *Cirknitz*, (into which the Water comes up by the several Holes or Pitts in the Bottom thereof) as likewise by visible Passages above ground, such as *Urainajamma*, *Sekadulze* and *Tresenz*.

That some of these Passages bring *Fish*, some *Ducks* and *Fish*, others only Water, seems to depend on the position of the inward Mouths of these Subterraneous Channels; for if they be so constituted, as to draw off the Water from the surface of the upper Lake, on which the *Ducks* swim, they must needs be drawn away by the Stream into these Caverns, and come out with the Water: But if so be that the Channels open, into the upper Lake, under the surface of the Water, and from thence ascend obliquely for some space, before they come to descend; then the Water they carry is drawn from below the surface, and consequently can bring with it no *Ducks*, but only *Fish*. Those Pitts which yield only Water, may well be supposed to be fed by passages too narrow to let the *Fish* pass, tho' their multitude may make the quantity of Water they emit to be very considerable.

The Manner of the falling away of the Water or emptying of the Lake, I thus explain. After a long drought or want of Rain, all the Springs that feed the upper Lake under *Javornik* are much diminished; so that wanting fresh supplies, it ceases to run over by the several Channels, but now mentioned: hence the Lake of *Zirknitz*, and that under it, are fed only by the eight Rivulets that always fall into them; and then the Water draws off faster than

than it comes in, both by the Channels of *Mala* and *Velkakarlouza*, as also by a concealed Subterraneous Passage out of the under Lake, which latter alone is able to transmit more Water, than the said eight Rivulets afford. Consequently the Lake must sink, and that in a certain proportion of Time, depending on the quantity of Water to be evacuated, compared with the excess of that that runs out above that that enters it, in the same time: Those Pitts that are higher are soonest drie, the lower latest, and so come to be emptied in the Order above described. And when the Lake is all dry, then the said Rivulets soak by several little holes in the Bottom, into the under Lake, and all their Water is carried away by the aforesaid Subterraneous Passage.

That there is such a Passage is very evident, and that it communicates under ground with the Channels of *Mala* and *Velka-Karlouza*, coming out with them, as has been already said, near St. *Cantian* at a Rocky Cave, and making the River *Jesero*. For when the Lake of *Zirknitz* is very full, and runs out at both *Velka* and *Mala-Karlouza*, the River *Jesero* at St. *Cantian* overflows, and runs with great Violence. When it only runs out at *Mala-Karlouza* (which is somewhat lower than the other) then the Water of *Jesero* is much less rapid. But when the Lake is so fallen that it runs out at neither of the two, the River *Jesero* is still less, but runs with a considerable Stream, till two days after the Lake has been dry; after which, the said River becomes little, voiding no more Water than the Lake receives from the eight Rivulets that run into it; by which it is clearly proved, that this Subterraneous Passage does meet with the Channels of *Velka* and *Mala-Karlouza*, and needs no farther Illustration.

Hence it appears, why this Lake sometimes is twice or thrice dry in a Year, at other times continues full for 3 or 4 Years together, but was never known to be dry for a whole Years time; for it falls dry at any time when
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there falls but little Rain in a long space of time; and in Rainy Years it continues always full; but it never happens in this Country, that there is a drought for a whole Year together.

The *Ducks* I have so often mentioned, and which are cast out with the Water, are generated in the Lake, under the Mountain *Javornic*; when they first come out, they swim well, but are stark blind, and have no Feathers on them, or but few, and therefore are easily caught; but in 14 days time they get Feathers, and recover their sight yet sooner, and afterwards fly away in Flocks. They are black, only white on the Fore-head, their Bodies not bigg, resembling ordinary *Wild-Ducks*, and are of a good taste, but too fatt, having near as much fatt as lean.

I killed some of them as soon as they had been cast out at *Sekadulze*, and opening their Bodies, I found in them much sand, and in some few, small Fishes; in others green stuff like Grass or Herbs: which was the more strange, because I never found any green thing growing in any of our Subterraneous Grottoes or Lakes in *Carniola*; I tried also to procure some of the Fish at the time of their being cast out, to open them and see what they live upon, but notwithstanding all my endeavour, I could not get any of them to satisfy my Curiosity withall.

Almost every Year, at a Hole in the Mountain called *Storjég*, about half a *German* Mile from the Lake of *Zirknitz*, near the Town of *Laas*, whenever there happen great Floods of Rain, this sort of *Ducks* is cast out in great abundance, by the Water gushing out with much force. I conceive that this Cavern *Storjég* is another Passage out of the same Lake under *Javornic*, that overflows and fills up our Lake of *Zirknitz*; but this being somewhat higher, it never runs out, unless the said Lake be more than ordinary swell'd by the Violence of the Rains. The casting out of great Numbers of *Ducks* here, is so common that it is lookt upon as no Rarity.

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It may seem strange and hard to believe, that there should be such Subterraneous Lakes and Channels as we here suppose; but besides that without them it would be impossible to account for all these several Effects, which are most true, and which I myself have observed; there is a most Notable Instance of the like things, found in the Subterranean Cavern called, *The Grotto Podpetschio*, which is represented in *Fig. III.*

This *Grotto* is in *Carniola* in the Parish of *Guetenffeld*, distant four *German Miles* from the City *Labac*. *a* is a Hole or entrance into the Rocky Mountain; *b* is a great Cavern in the Mountain, capable to hold above a hundred Horsemen; *i, k*, is a Channel bigg enough for a Man to pass by, as far as the Lake *o*, out of which Lake the Inhabitants hereabouts draw all their Water, (having none nearer) and fetch it with lighted Torches. Into this Lake *o*, the Water runs with a great stream by the Channel *l*. And out of this Lake it falls down a Precipice into a great Cavern, with so much noise that the discharge of a Pistol would not be heard here. There is likewise another Channel *m* which tends upwards obliquely, and leads to the great Lake *n*, whose length and breadth are hitherto undiscovered; I lookt about it with many lights, and could see nothing but Water, and throwing Stones several ways as far as I could, I heard them all fall in the Water: and I found the depth of it near the Bank to be 10 Cubits, and doubt not but it is much deeper in the middle.

The Country People told me, that this Channel *l* affords always an equal quantity of Water, or else is quite dry; and that sometimes it will cease to run in a Moment, and continue dry for some Weeks, and then on a suddain it will run again with great force, so as the Noise thereof frequently frights the People as they come for Water.

Out of the Cave *b* there is another Channel *c*, which is divided into three others *d, e, f*. This Channel *f* tends obliquely

obliquely downwards, till it comes to a running Water in *g*, from whence one may go on to *h*, where looking thro' a little hole, one may see another little Lake.

All the Channels I have mentioned, are formed in a very hard Rock, and are smooth or polished, as if cut by Men's Hands: These may be seen by any one that will go with lighted Torches; and there are many such, in which I have not been.

If any one would carry a Boat to the Lake *n*, and would row upon it, I doubt not but he might find several curious things. I believe this Subterraneous Lake to be a *German* Mile long: for from this Grotto *Podpetschio*, at a Miles distance, there is a Village called *Kumpale*, whose Inhabitants have no other Water, than what they fetch out of a hole in the Rock, going with lighted Torches, by a large Channel, to a great Lake under ground. I measured with good Geometrical Instruments, such as Miners use, the Level of these two Lakes of *Podpetschio* and *Kumpale*, and found them to be in one Horizon; and this I did twice, both when the Channel *l* at *Podpetschio* run, and when it did not run. When it began to run, I found that the Lake *n* was two Cubits higher than it had been before; when it ceased to run, I came again on purpose to observe it, and found that then also, the other Lake at *Kumpale* was in the same Level; from whence it is most certain, that these two, are only one continued Subterranean Lake, &c.

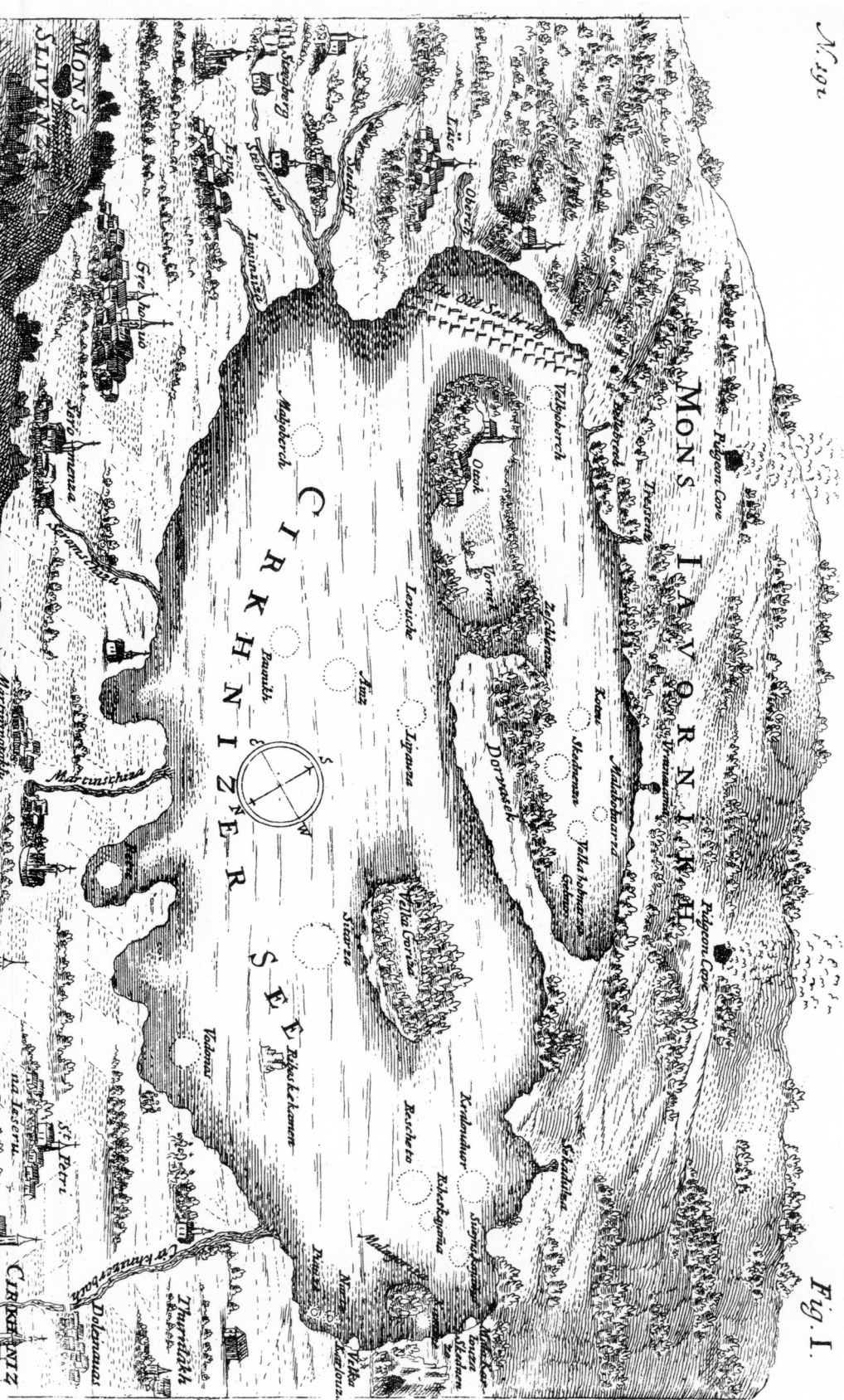


Fig. I.



Fig. II.



The plan of the Grotto Podpetchio

Fig. III.

